

REMARKS

Claims 1-22 are currently pending in this application. Reconsideration is respectfully requested in light of the following remarks.

The Examiner maintains the previous rejection of claims 1, 2, 4, 6, 7, 15-19 and 22 under 35 U.S.C §102(e) as being anticipated by U.S. Patent 6,195,584 to Hill et al. Applicants respectfully traverse this rejection.

Applicants' claimed invention as recited in independent claims 1, 15, 19 and 22 is directed towards a method and corresponding apparatus for determining displacement of an electrode. For example independent claim 1 recites a method comprised in part by delivering an electrical signal to a first position using a first electrode located in or adjacent to a first cardiac chamber... sensing a potential generated by the delivered electrical signal using a second electrode located at a second position in or adjacent to a second cardiac chamber and determining a displacement of the second electrode based, at least in part, on the sensed potential. (Underlining added for emphasis only). Applicants respectfully submit that Hill et al. do not disclose or suggest the recited claim elements.

Rather, Hill et al. disclose a system and method for detecting atrial lead dislodgment at a heart tissue/pacing lead interface not the displacement i.e. distance the electrode in one chamber moves in response to an excitation in another chamber as recited in the claimed invention. More specifically, Hill et al. pace the atrium in a test mode that employs high energy atrial pacing pulses. In the test mode the device of Hill et al. measures PR intervals between the high energy atrial pacing pulses and corresponding sensed ventricular depolarizations. The device of Hill et al. then determines that the atrial electrode is mis-located responsive to the occurrence of a threshold number of short PR intervals or that the atrial electrode is appropriately located responsive to the occurrence of a threshold number of long PR intervals. (see Abstract).

Thus, Hill et al. detect dislodgement of the atrial electrode (i.e. the first electrode of the claimed invention) in accordance with changes in the interval between the paced atrial events (i.e. pulses in the first chamber) and corresponding ventricular events as

detected by a ventricular electrode (i.e. the second electrode of the claimed invention.) Hill et al. do not disclose or in any way suggest delivering an electrical signal to a first position using a first electrode located in or adjacent to a first cardiac chamber... and sensing a potential generated by the delivered electrical signal using a second electrode located at a second position in or adjacent to a second cardiac chamber and determining a displacement of the second electrode (i.e. the ventricular electrode of Hill et al.) based, at least in part, on the sensed potential as recited in the claimed invention.

In maintaining this rejection the Examiner argues that Applicants have not used the recited term "displacement" to refer to the distance the electrode in one chamber moves in response to an excitation in another chamber as argued by Applicants. The Examiner further argues that the term displacement is therefore open to any suitable definition of the term. The Examiner then proceeds to compare the definition of the term to displace which is not recited in the claimed invention and dislodgement.

While Applicants agree that limitations from the specification are not read into the claims (*In re Van Geuns*, 988 F.2d 1191, 26 USPQ2d 1057 (Fed. Cir. 1993)) as argued by the Examiner, Applicants would remind the Examiner that an applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s). See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (inventor may define specific terms used to describe invention, but must do so "with reasonable clarity, deliberateness, and precision" and, if done, must "'set out his uncommon definition in some manner within the patent disclosure' so as to give one of ordinary skill in the art notice of the change" in meaning) see MPEP 2111.01(IV).

Applicants note that the specification clearly defines the term displacement to mean the distance an electrode travels in response to a stimulation pulse. For example, FIG. 7 shows an exemplary plot 700 of inter-electrode distance versus potential (e.g., voltage). The plot 700 includes a LV-ring to can sense curve 610 and a RV-ring to can sense curve 630. The LV-ring to can sense curve 610 represents

potentials sensed in a potential field generated by a RV-ring to can delivery signal while the RV-ring to can sense curve 530 represents potentials sensed in a potential field generated by a LV-ring to can delivery signal. (see page 19, lines 19-25).

Moreover, Applicants claim the noun “displacement” which is defined by Meriam Webster’s Dictionary as the difference between the initial position of something and any later position not the verb “to displace” as defined by the Examiner to support his argument against patentability.

Accordingly, Applicants respectfully submit that claims 1, 15, 19 and 22 are novel and non-obvious over Hill et al. and are allowable. Applicants further submit that claims 2, 4, 6 and 7 and claims 16-18 that depend from claims 1 and 15 respectively are allowable as are claims 1 and 15 and for additional limitations recited therein.

The Examiner rejected claims 3, 5, 20 and 21 under 35 U.S.C §103(a) as being unpatentable over Hill et al. Applicants respectfully traverse this rejection.

In view of the foregoing analysis of independent claims 1, 15 and 19 over Hill et al., Applicants believe that the rejections of dependent claims 3, 5, 20 and 21 under §103 is rendered moot as claims 3, 5, 20 and 21 depend from allowable independent claims 1, 15 and 19 respectively. Applicant, therefore, requests withdrawal of the rejection of claims 3, 5, 20 and 21 under 35 U.S.C. § 103(a).

The Examiner rejected claims 8 and 9 under 35 U.S.C §103(a) as being unpatentable over Hill et al. in view of U.S. 4,173,230 to Digby and claims 10-14 under 35 U.S.C §103(a) as being unpatentable over Hill et al. in view of U.S. Publication 2003/0204212 to Burnes et al. Applicants respectfully traverse these rejections.

In view of the foregoing analysis of independent claim 1 over Hill et al., Applicants believe that the rejections of dependent claims 8, 9 and 10-14 under §103 is rendered moot as claims 8, 9 and 10-14 depend from allowable independent claim 1. Applicant, therefore, requests withdrawal of the rejection of claims 8, 9 and 10-14 under 35 U.S.C. § 103(a).

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In light of the above remarks, it is respectfully submitted that the application is in condition for allowance, and an early notice of allowance is requested.

Respectfully submitted,

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Date

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